

REMARKS

I. Introduction

In response to the Office Action dated May 24, 2007, Applicants have incorporated the limitations of claim 3 into claim 1. Claim 3 has been cancelled, without prejudice. No new matter has been added.

A Request for Continuing Examination is being filed concurrently with this Amendment.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection Of Claims 1-5 Under 35 U.S.C. § 103

Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Beane et al. (USP No. 5,453,293) in view of Boecker et al. (USP No. 5,624,479) and Wilks et al. (USP No. 3,926,570); and claims 1-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pearlstein et al. (USP No. 3,754,939) in view of Wilks. Applicants respectfully traverse these rejections for at least the following reasons.

With regard to the present invention, amended claim 1 recites a method for producing conductive particles comprising the steps of: introducing a solution composed mainly of palladium chloride and hydrochloric acid into an electroless plating bath containing a reducing agent, and one from the group consisting of particles of an organic material or particles of an inorganic material while stirring said bath; and simultaneously applying an electroless plating to the surface of said particles and allowing the palladium catalyst to be carried on the surface of said particles to give conductive particles having an electroless plate coating, wherein said

electroless plate coating comprises at least one selected from the group consisting of Ni, Ni-P, Ni-B, Cu, an Ni-PTFE composite coating and a Cu-PTFE composite coating, and wherein said electroless plate coating has three-dimensionally connected pores that allow water molecules, hydroxy ions, sodium ions or potassium ions to pass through and diffuse.

As the claim indicates, the electroless plate coating has three-dimensionally connected pores that allow water molecules, hydroxy ions, sodium ions or potassium ions to pass through and diffuse.

It is alleged that while Beane, Boecker, Wilkes and Pearlstein do not mention the resulting porosity claimed in amended claim 1, it would be an inherent result that the coated particles would have the claimed porosity. This allegation is false and contrary to the teachings of the cited prior art.

The Examiner continues to rely on MPEP 2144.04.IV.C which states that selection of any order of mixing ingredients is prima facie obvious. However, the obviousness applies only in the absence of new or unexpected results. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946). Applicants have shown repeatedly that the method of the present invention results in a porous coating whereas the cited prior art is silent with respect to forming a porous coating. This alone is sufficient to show new and unexpected results, since it is not inherent that a coating is porous. In fact, the cited prior art EXPLICITLY describes coatings that are not porous, but rather, uniform.

For example, Beane shows in Figs. 11 and 12 a uniform coating of metal on the particles with no pores mentioned, shown or suggested. Beane further states that “in particular, the engineered intrinsic properties of the coated particles are exhibited with a high degree of

uniformity and isotropy throughout the article, because each particle is uniformly coated”. (see, col. 2, lines 6-10). Boecker teaches, in col. 4, line 66 - col. 5, line 4 that the process used “provide[s] nickel deposits of *exceptionally uniform thickness* on the contact pads, which deposits are also free of other surface imperfections...”. The phrase “exceptionally uniform thickness” and “free of surface imperfections” does not in any way describe the porous coating of the present invention. Thus, both Beane and Boecker are directed to a method of coating particles to achieve a uniform coating, not the porous coating of the present invention. Furthermore, Pearlstein provides for “an electroless palladium alloy deposit [that] is more uniform resulting in a minimum amount of metal required for a given application [and] yields less porous deposits and hence thinner deposits may be for a given application.” (see, col. 1, lines 39-44 of Pearlstein). Thus, the goal of Pearlstein to eliminate porosity, not to give the particle porosity. Therefore, for the Examiner to suggest that the porous coating is inherent is both unsupported and explicitly rejected by the cited prior art. Accordingly, as the combination of Bean, Boecker and Wilks or of Pearlstein and Wilks does not teach or suggest each of the limitations of amended claim 1, Applicants respectfully request that the § 103 rejections of claim 1 be withdrawn.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA1974). As is clearly shown, Beane, Boecker, Pearlstein and Wilks do not disclose a method for producing conductive particles having an electroless plate coating wherein said electroless plate coating has three-dimensionally connected pores that allow water molecules, hydroxy ions, sodium ions or potassium ions to pass through and diffuse. Therefore, Applicants submit that Beane, Boecker, Pearlstein and Wilks do not anticipate, nor render obvious, amended

claim 1 of the present invention and accordingly, Applicants respectfully request that the § 103(a) rejections of claim 1 be withdrawn.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Conclusion

Having responded to all open issues set forth in the Office Action, it is respectfully submitted that all claims are in condition for allowance.

Application No.: 10/822,695

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Michael E. Fogarty
Registration No. 36,139

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 MEF/NDM:kap
Facsimile: 202.756.8087
Date: October 24, 2007

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